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10/798,757	03/11/2004	John R. Harrison	ITL1093US (P18487)	6402
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EXAMINER				
MALZAHN, DAVID H				
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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/798,757
Filing Date: March 11, 2004
Appellant(s): HARRISON ET AL.

Timothy N. Trop
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8 January 2008 appealing from the Office action mailed 30 August 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-12 and 14-22 stand rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As set forth in MPEP 2106 the critical question, relative to the 101 analysis, to be answered is “What did applicant invent?” When the claims involved a mathematical algorithm then the claimed invention as a whole must be useful and accomplish a practical application, i.e. it must produce a “useful, concrete and tangible result”, State Street, 47 USPQ2d 1596.

The claims are directed to a method, article or system for calculating the value of a function given an argument via a mathematical algorithm. The first two steps of claim 1 are directed to mathematical computations of reducing an input argument of a function and approximating a polynomial. The last step of claim 1 calls for “executing a single instruction multiple data floating point operation” which means that the computations are performed on a particular type of general purpose computer architecture known as SIMD or Single Instruction Multiple Data. This type of general purpose computer allows for implementation of floating point operations on multiple data in response to a single instruction.

The examiner asserts that use of a general purpose computer to perform a mathematical computation does not produce a real-world or tangible result but instead merely produces the value of the function. However, even if the result is considered to be useful, concrete and tangible and hence a practical application, the claimed invention in effect covers every substantial practical application of the recited computations as most practical applications of the computations would involve use of a general purpose computer. Since the claims cover every

substantial practical application of the mathematical algorithm, the claims for all practical purposes pre-empt the mathematical algorithm. Benson, 175 USPQ 673.

Independent claim 12 recites instructions for performing the above steps stored on a machine-accessible storage medium. The examiner asserts that as with limitations of the mathematical computations to a general purpose computer, limitation of the claimed invention to instructions to be stored on machine accessible storage medium would in effect cover every substantial practical application of the algorithm as storage of the algorithm on machine accessible storage medium is necessary for implementation of the algorithm on a general purpose computer.

Independent claim 18 recites a processor and a memory for storing the instructions discussed above. Thus, it claims the general purpose computer used to perform the recited mathematical functions. As discussed above, inclusion of a general purpose computer without more fails to limit the claim to a practical application and if such an application is found, would in effect pre-empt use of every substantial practical application.

(10) Response to Argument

Relative to applicants' argument, while "executing a single instruction multiple data floating point operation" may be a computer operation it fails to provide a practical application.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Art Unit: 2100

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WQAS TC 2100